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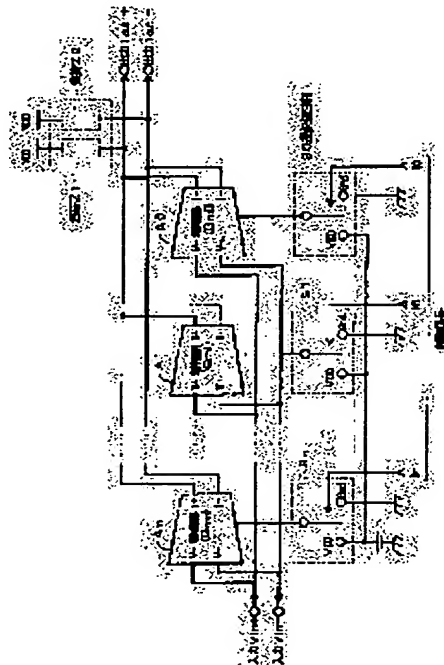
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## (54) GAIN VARIABLE AMPLIFIER CIRCUIT

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a circuit which reduce gain variation and is easy to correct in the case of a CMOS about this gain variable amplifier circuit that sets gain to a prescribed value.

**SOLUTION:** Input terminals  $V_{in+}$  and  $V_{in-}$  and output terminals  $I+$  and  $I-$  of plural voltage input-current output type differential amplifiers  $A_0$  to  $A_n$  which have mutual conductance  $G_{m0}$  to  $G_{mn}$  that are preliminarily individually set are respectively undergone common connection, and selection controlling parts 80 to  $S_n$  select and operate the amplifiers  $A_0$  to  $A_n$  with programmable control signals  $N_0$  to  $N_n$ . Preferably, CMOS resistance which performs bias supply from the outside is connected to a differential pair of source connecting parts in corresponding voltage/current converting part of each differential amplifier  $A_0$  to  $A_n$ .



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